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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/021,295	12/19/2001	Jan H. Udding	P 290478 3734US/CNT2	9338
909	7590	10/30/2003	EXAMINER	
PILLSBURY WINTHROP, LLP			ASINOVSKY, OLGA	
P.O. BOX 10500			ART UNIT	PAPER NUMBER
MCLEAN, VA 22102			1711	

DATE MAILED: 10/30/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

### Office Action Summary

**Application No.**

10/021,295

**Applicant(s)**

UDDING ET AL.

**Examiner**

Olga Asinovsky

**Art Unit**

1711

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 04 September 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-4,6-9 and 12-24 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-4,6-9 and 12-24 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 8/29/03. 6) ☐ Other: \_\_\_\_\_

### **DETAILED ACTION**

Applicants amend independent claims 1 and 9 to define an unsaturated prepolymer wherein the unsaturated prepolymer is a (meth)acrylate-containing resin selected from the group consisting of vinyl esters resins and vinyl ester urethane resins obtained by reacting an isocyanate, a polyol and a hydroxyl-terminated ester of (meth)acrylic acid, and has an acid number of less than 10 mg of KOH per g, and where the curing may be effected with the aid of a radical-forming system that is unstable in the temperature range from -20C to +110C.

New search has been made for an unsaturated prepolymer selected under Markush practice for vinyl ester resin and vinyl ester urethane resin.

The cancellation of claims 5 and 10-11 is noted.

### ***Claim Rejections - 35 USC § 103***

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-4, 7-9 and 12-24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Guzauskas U.S. Patent 6,103,779.

3. Guzauskas discloses a molding composition based on acrylic resin and one or more liquid monomers, column 22, lines 9-32. The term "acrylic resin" is intended to

include acrylic monomers of formula (I) and vinyl ester resins, column 11, line 20. The vinyl ester resins are readable in the present independent claims 1 and 9. An acid number of less than 10 mg of KOH per g for the acrylic resin would be inherent in Guzauskas invention. The liquid monomers having vinyl unsaturation can be selected such as vinyl ether monomers, claim 9 at column 22 and column 23, line 1. The appropriate curing initiator can be used for producing thermosetting molding composition, column 18, lines 6-8 and claim 16 at column 23. The thermosetting molding compositions can be cured at temperatures from 75C to 200C, column 18, line 18, for the present claims 1 and 9. The composition can be used for producing industrial applications, column 18, line 25, for the present claims 22-24. A liquid monomer, liquid oligomer or liquid polymer having vinyl unsaturation which cures to a thermoset polymer in the presence of a free-radical polymerization initiator is not critical in Guzauskas' invention, column 11, lines 42-48 and column 12, lines 47-52.

4. The difference between the present claims 1 and 9 is the requirement in the present claims of a vinyl ether monomer having a general structure of formula (I) or (II). Reference discloses broad limitations of liquid monomers having vinyl unsaturation for using in the similar purposes that disclose in the present claims. It would have been obvious to one of ordinary skill in the art to use a molding composition in Guzauskas wherein a liquid monomer such as a vinyl ether monomer is selected because any liquid monomer having vinyl unsaturation which will participate in free-radical polymerization at ambient temperature can be used, and, thereby, obtain the claimed requirement.

5. Claims 1-4, 6-9 and 12-24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Friedlander et al U.S. Patent 6,054,502.

Friedlander discloses a radiation curable composition comprising an unsaturated polyester component (A) and a non-polymerized, curable vinyl ether component (B), column 1, lines 38-46. An unsaturated polyester is an unsaturated polyester-urethane polymer, column 10, claim 8. The unsaturated-urethane polymer can be prepared by reaction of diisocyanate with hydroxyl functional unsaturated polyester polyol, column 4, lines 6-10. The unsaturated polyester can have an acid value of 8.1, column 7, line 1. The vinyl ether component (B) is readable in the present claims, column 3, lines 35-65.

The difference between the present claims 1, 6 and 9 and Friedlander is that in the working examples Friedlander does not disclose vinyl ester urethane resin obtained by reaction of isocyanate, a polyol and a hydroxyl-terminated ester of (meth)acrylic acid. However, it would have been obvious to one of ordinary skill in the art to use unsaturated polyester-urethane polymer in Friedlander and to consider that an unsaturated polyester can be based on (meth)acrylic ester because the unsaturated polyester is the reaction product of any unsaturated carboxylic acid or anhydride with polyol, column 4, lines 10 and 44-45.

The applicants' references cited on 1449 form have been considered.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Olga Asinovsky whose telephone number is 703-308-0041. The examiner can normally be reached on 9:00 to 5:30 pm.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, James Seidleck can be reached on 703-308-2462. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0661.

Olga Asinovsky  
Examiner  
Art Unit 1711

C.B.

O.A.  
October 23, 2003

  
RABON SERGENT  
PRIMARY EXAMINER